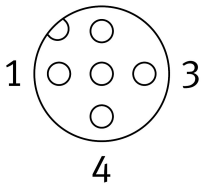
# Connecting cable
# NEBA-M12W5-U-5-N-LE3

Part number: 8078246






## Data sheet

| Feature | Value |
|---|---|
| Conforms to standard | EN 61076-2-101<br>EN 61984 |
| Approval | c UL us - Listed (Oil) |
| Intended use | The connecting cable connects field devices (sensors, actuators) with controllers. |
| Explosion protection | The information in the certificate must be observed!<br>Zone 2 (ATEX)<br>Zone 22 (ATEX) |
| Certificate issuing authority | UL E253748 |
| Cable designation | Without inscription label holder |
| Frequency of connection | 100 |
| Product weight | 103 g |
| Instructions on use | Meets the requirements of IEC 61010-1 and 61010-2-202, in particular for electrically operated valves from Festo.<br>Only energy-limited circuits with a maximum current of 4 A at a max. open circuit voltage of 30 V DC are permissible for supplying electrically actuated valves from Festo. |
| Electrical connection 1, function | Field device side |
| Electrical connection 1, design | Round |
| Electrical connection 1, connection type | Socket |
| Electrical connection 1, cable outlet | Angled |
| Electrical connection 1, connector system | M12x1, A-coded to EN 61076-2-101 |
| Electrical connection 1, number of connections/cores | 5 |
| Electrical connection 1, used connections/cores | 3 |
| Electrical connection 1, type of mounting | Screw-type lock with 13 mm hexagon and longitudinal knurl<br>Rotatable |
| Electrical connection 1, compatible type of mounting | Compatible with rotatable/non-rotatable screw-type lock |
| Electrical connection 1, terminal allocation | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK |
| Electrical connection 1, display | None |
| Electrical connection 2, function | Control side |
| Electrical connection 2, connection type | Cable |

| Feature | Value |
|---|---|
| Electrical connection 2, connector system | Open end |
| Electrical connection 2, number of connections/cores | 3 |
| Electrical connection 2, used connections/cores | 3 |
| Electrical connection 2, terminal allocation | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK |
| Electrical connection 2, display | None |
| Operational voltage range DC | 0 V...250 V |
| Operational voltage range AC | 0 V...250 V |
| Note on operational voltage range AC | 0 - 30 V for UL applications |
| Current rating at 40° C | 4 A |
| Immunity to surge | 2.5 kV |
| Cable length | 5 m |
| Cable characteristic | Suitable for energy chains/robot applications<br>Abrasion-resistant<br>Low adhesion<br>Flame-retardant and self-extinguishing |
| Test conditions cable | Test conditions on request<br>Torsional strength: > 300,000 cycles, ±270°/0.1 m<br>Flexural strength: >50000 cycles, bending radius 5 mm<br>Energy chain: > 5 million cycles, bending radius 28 mm |
| Notes on test conditions cable | Tested at 23°C |
| Bending radius, fixed cable | 12 mm |
| Bending radius, moving cable | 39 mm |
| Cable diameter | 3.8 mm |
| Cable structure | 3 x 0.25 mm² |
| Nominal cross section conductor | 0.25 mm² |
| Wire ends | Stripped<br>Cut off bluntly |
| Degree of protection | IP65<br>IP68<br>IP69K |
| Special characteristics | UV-resistant<br>Hydrolysis-resistant<br>Resistant to cooling lubricants<br>Resistant to microbes<br>Oil-resistant<br>Ozone-resistant |
| Outdoor applications | Application areas with direct exposure to outdoor climatic influences<br>Class D1 based on IEC 60654-1 |
| Ambient temperature | -40 °C...85 °C |
| Note on ambient temperature | -40 - 50°C for UL applications |
| Ambient temperature with moving cable | -20 °C...85 °C |
| Note on the ambient temperature with flexible cable installation | -20 - 50°C for UL applications |
| Storage temperature | -25 °C...55 °C |
| Note on storage temperature | Temporarily during transport in packaging -40 ... 85 °C |
| Relative air humidity | Max. 93% at 40 °C |
| Nominal altitude of use | <= 2000 m NHN |
| Overvoltage category | II |
| CE mark (see declaration of conformity) | To EU Low Voltage Directive<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK RoHS instructions<br>To UK regulations for electrical equipment |
| LABS (PWIS) conformity | VDMA24364-B2-L |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1 |
| Note on materials | CFC-free<br>RoHS compliant<br>Cadmium-free |

| Feature | Value |
|---|---|
| | Free of halogen<br>Free of phosphoric acid ester |
| Pollution degree | 3 |
| Corrosion resistance class CRC | 1 - Low corrosion stress |
| Material cable sheath | TPE-U(PUR) |
| Cable sheath colour | Grey |
| Material housing | TPE-U(PUR) |
| Housing colour | Black |
| Material screw-type lock | Nickel-plated die-cast zinc |
| Material seals | Fluoro rubber |
| Material electrical contact | Gold-plated copper alloy |
| Material insulating sheath | PP |